QUICK SET UP MANUAL – PROFESSIONAL WEATHER CENTER
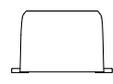
Using 915MHz wireless transmission of weather data, this unique weather station can be powered using batteries for all your weather needs in the home or office.

This product offers:

INSTANT TRANSMISSION **is the state-of-the-art new wireless transmission technology, exclusively designed and developed by LA CROSSE TECHNOLOGY.** *INSTANT TRANSMISSION* **offers you an immediate update (every 4.5 seconds!) (every 6.5 seconds for rain!) of all your outdoor data measured from the transmitters: follow your climatic variations in real-time!**
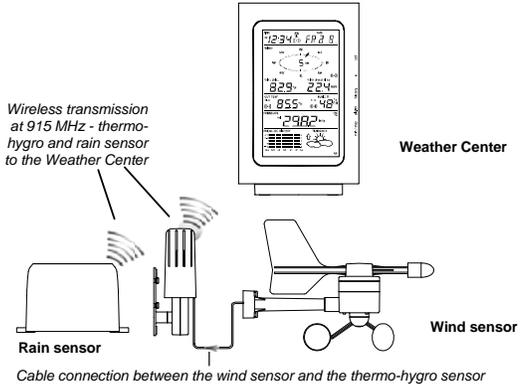
1

Carefully open and check that the following contents are complete:

Item:	Consisting of:	Fittings:	Illustration:
Base Station	1) Main unit		
Thermo-Hygro Sensor (TX31U-IT)	1) Main unit 2) Air Flow cover	1) Wall mounting screws 2) Plastic anchors for screws 3) 2 x cable ties	
Wind Sensor (TX23U)	1) Main unit with wind vane 2) 32 ft cable (already attached the main unit) 3) Mast holder	1) 1 x U-bolts for mast holder 2) 2 x Washers 3) 2 x Nuts 4) 2 x cable ties	

2
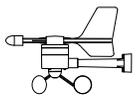
Rain Sensor (TX32U-IT)	1) Base and funnel	1) 2 x Screws and Plastic anchors	

SETTING UP:

Wireless transmission at 915 MHz - thermo-hygro and rain sensor to the Weather Center

Weather Center

Wind sensor

Rain sensor

*Cable connection between the wind sensor and the thermo-hygro sensor*

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Note:

When putting the Weather Center into operation, it is important to perform in close proximity (e.g. on a table) a complete wiring and set-up of the system. This step is important to test all components for correct function before placing and mounting them at their final destinations (See **Positioning** below). Spin the wind vane and tip the rain gauge to test.

1. Unwind the cables of the Wind sensor. Connect the Wind sensor to the Thermo-hygro transmitter by plugging the connector head into the socket of the Thermo-hygro sensor. The cord should "click" into place.

Sockets for wind sensor
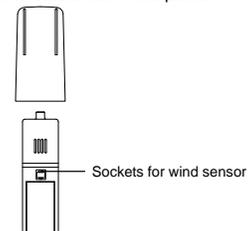
2. First insert the batteries into the Thermo-hygro sensor and Rain sensor ("**How to install and replace the batteries into the Thermo-hygro sensor**" and "**How to install and replace the batteries into the Rain sensor**" below).
3. Then insert the batteries into the Weather Center (see "**How to install and replace the batteries into the Weather Center**" below**)**. Once the batteries are installed, all segments of the LCD will light up briefly and a short signal tone will

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be heard. It will then display the time as 12:00, the date as 1.1.05, the weather icons, and air pressure value. "- - -" will be shown for outdoor data.

4. Afterwards, the Weather Center will start receiving data from the transmitter. The transmission reception icon will be blinking to indicate that the station is trying to get the thermo-hygro transmitter data. The outdoor temperature, humidity, wind data should then be displayed on the Weather Center. If this does not happen after 135 seconds, the batteries will need to be removed from all units. You will have to start again from step 2.

5. The transmitter reception icon is now blinking again to indicate that the station is trying to get the rain sensor data. It will stop blinking once the rain sensor has been detected. If this does not happen after 135 seconds, you will need to start again from step 2.

6. You may need to check the cable for correct connection and all the components for correct function by manually turning the wind-gauge by moving the wind-vane; tilting the rain sensor to hear the impact of the internal moving seesaw, etc. (see **Positioning** below).

7. Time and date shall be manually set (See **Manual Setting** below).

8. After the Weather Center has been checked for correct function with regard to the above points and found fit, the initial set up of the weather station system is finished and the mounting of the system components can take place. It must be ensured however that all components work properly together at their chosen mounting or standing locations. If e.g. there appear to be problems with the 915 MHz radio transmission, they can mostly be overcome by slightly changing the mounting locations or turning the base station.

Note:
The radio communication between the receiver and the transmitters in the open field reaches distances of max 330 feet, provided there are no interfering obstacles such as buildings, trees, vehicles, high voltage lines, etc.

9. Radio interferences created by PC screens, radios or TV sets can in some cases entirely cut off radio communication. Please consider this when choosing standing or mounting locations into consideration when choosing standing or mounting locations.

Note :
- After batteries are installed in the transmitter, install the batteries in the weather center to receive the signal from the transmitters as soon as possible. If the weather center is powered more than 5 hours after the transmitter is powered, the weather center will never receive signal successfully from the transmitters. In this case, user will need to reinstall the batteries from all the transmitters to redo set-up procedure.
- After batteries are installed, there will be synchronization between weather center and the transmitters. At this time, the signal reception icon will be blinking. When the signal is successfully received by the weather center, the icon will be switched on. (If it is not successful, the icon will not be shown in LCD) So the user can easily see whether the last reception was successful (icon on) or not (icon off). On the other hand, the short blinking of the icon shows that a reception is in progress.

PRESSURE
rel **29.82** inHg — Transmitter signal reception icon

- If the signal reception is not successful on the first frequency (915MHz) for 45 seconds, the frequency is changed to 920MHz and the learning is tried another 45 seconds. If still not successful, the reception is tried for 45 seconds on 910MHz. This will also be done for re-synchronization.

HOW TO INSTALL AND REPLACE THE BATTERIES INTO THE THERMO-HYGRO SENSOR
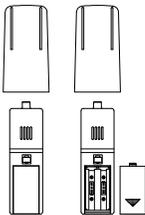
The outdoor Thermo-hygro sensor works with 2 x AA, IEC LR6 1.5V Alkaline batteries. To install and replace the batteries, please follow the steps below:
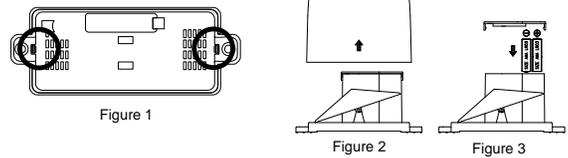1. Uninstall the rain cover of the transmitter.
2. Remove the battery compartment cover.
3. Insert the batteries, observing the correct polarity (see the marking in the battery compartment).
4. Replace the battery cover.

Note:
In the event of changing batteries in any of the units, all units need to be reset by following the setting up procedures. This is because a random security code is assigned by the thermo-hygro sensor at start-up and this code must be received and stored by the Weather Center in the first several minutes of power being supplied to it.

HOW TO INSTALL AND REPLACE THE BATTERIES INTO THE RAIN SENSOR

Figure 1

Figure 2   Figure 3

The rain sensor works with 2 x AAA, IEC LR3, 1.5V Alkaline batteries. To install and replace the batteries, please follow the steps below:
1. Press tabs back to unlock rain sensor cover. (Figure 1)
2. Lift rain sensor cover to access battery compartment. (Figure 2)
3. Insert the batteries, observing the correct polarity (see the marking in the battery compartment). (Figure 3)
4. Replace the battery cover and the rain cover onto the unit.

Note:
In the event of changing batteries in any of the units, all units need to be reset by following the setting up procedures. This is because a random security code is assigned by the rain sensor at start-up and this code must be received and stored by the Weather Center in the first several minutes of power being supplied to it.

HOW TO INSTALL AND REPLACE THE BATTERIES INTO THE WEATHER CENTER
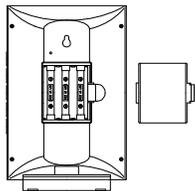
The Weather Center works with 3 x AA, IEC LR6, 1.5V Alkaline batteries. When the batteries need to be replaced, the low battery symbol will appear on the LCD. To install and replace the batteries, please follow the steps below:

1. Remove the battery compartment cover.
2. Insert the batteries observing the correct polarity (see the marking in the battery compartment).
3. Replace the battery cover.

BATTERY CHANGE:

It is recommended to replace the batteries in all units every 24 months to ensure optimum accuracy of these units.

Please participate in the preservation of the environment. Return used batteries to an authorized depot.
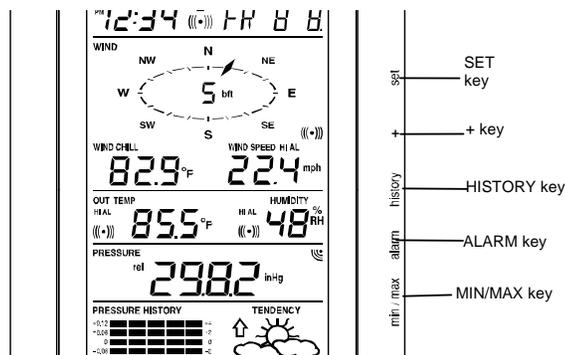
Note:
The stored History record will not be kept after the battery change is done on the Weather Center.

FUNCTION KEYS:

Weather Center:
The Weather Center has 5 easy-to-use function keys.

SET key

+ key

HISTORY key

ALARM key

MIN/MAX key

SET key
- Press and hold to enter manual setting modes: LCD contrast, Manual time setting, 12/24 hour time display, Calendar setting, ºF/ ºC temperature unit, Wind

speed unit, Rainfall unit, Pressure unit, Relative pressure reference setting, Weather tendency threshold setting, Storm warning threshold setting and Storm Alarm On/ Off setting
- Press to toggle between the display of Mode 1 or Mode 2:
  Mode 1: "Wind speed + outdoor temp + rel. pressure"
  Mode 2: "Gust + Dew Point temp + rainfall" If pressure is showing with wind gust, press the plus button to view 24 hour and total rain.
  (Mode 2 displayed will be shown for 30 seconds. Then it will return to normal display automatically.)
- In normal display mode, press and hold to switch on/ off the Buzzer
- In the weather alarm setting mode, press and hold to adjust different alarm value and switch the alarm On/ Off
- Press to activate the reset mode when max or min record is shown
- Stop the alarm during the time alarm or weather alarm ringing

+ key
- In display Mode 1, press to toggle between the display of Preset alarm time, date, weekday + date, Indoor temp, or second in the time display
- In display mode 2, press to toggle between the display of Rel. Pressure, 24 hour rainfall and Total rainfall
- Press to adjust (increase) the level of different settings
- Stop the alarm during the time alarm or weather alarm ringing
- Press to confirm to reset the max/min record
- Press to reset the total rainfall amount to 0

HISTORY key
- Press to display the weather data history records
- Stop the alarm during the time alarm or weather alarm ringing

- Press to exit manual setting mode and alarm setting mode

ALARM key
- Press to enter the time alarm and weather alarm setting mode
- Confirm particular alarm setting
- Press to exit the manual setting mode
- Stop the alarm during the time alarm or weather alarm ringing
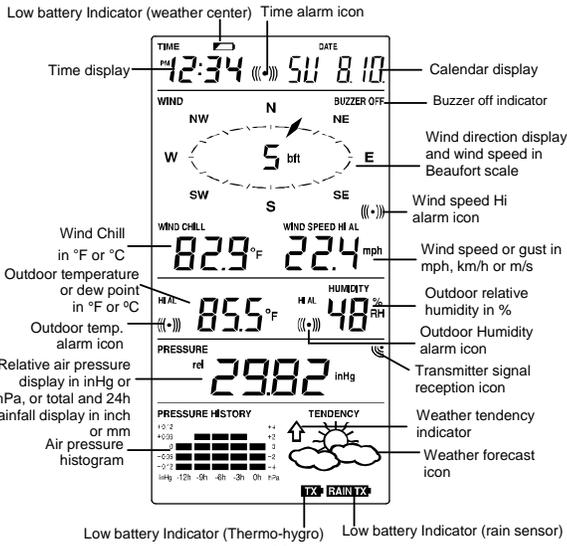- Press to exit max/ min record display mode

MIN/MAX key
- Press to display minimum and maximum records of various weather data
- Press to adjust (decrease) the level of different settings
- Stop the alarm during the time alarm or weather alarm ringing

LCD SCREEN
The LCD screen is split into 5 sections displaying the following information:
1. Time and date/ indoor temp/ second
2. Wind data
3. Outdoor temperature, Dew point and humidity,
4. Air pressure, Rainfall data,
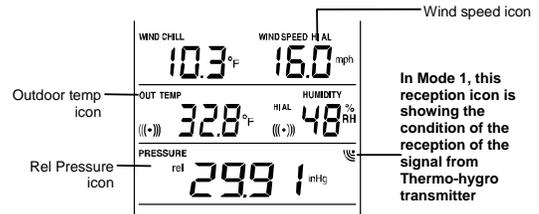5. Air pressure history and Weather forecast icon.

Low battery Indicator (weather center) Time alarm icon
Time display
Calendar display
Buzzer off indicator
Wind direction display and wind speed in Beaufort scale
Wind speed Hi alarm icon
Wind Chill in °F or °C
Wind speed or gust in mph, km/h or m/s
Outdoor temperature or dew point in °F or ºC
Outdoor relative humidity in %
Outdoor temp. alarm icon
Outdoor Humidity alarm icon
Relative air pressure display in inHg or hPa, or total and 24h rainfall display in inch or mm
Transmitter signal reception icon
Weather tendency indicator
Air pressure histogram
Weather forecast icon
Low battery Indicator (Thermo-hygro)   Low battery Indicator (rain sensor)

* When the signal from the transmitter/ or Rain sensor is successfully received by the Weather Station, this icon will be switched on. (If not successful, the icon will not be shown on the LCD). User can therefore easily see whether the last reception was successful ("ON" icon) or not ("OFF" icon). On the other hand, the short blinking of the icon shows that a reception is being done at that time.
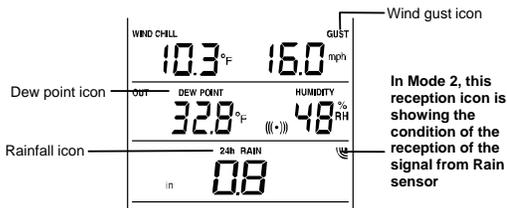*In normal display user may press the SET key shortly to toggle between Mode 1 and Mode 2 display:

Mode 1: Wind speed, outdoor temperature and relative pressure reading are shown.

Wind speed icon
Outdoor temp icon
Rel Pressure icon

In Mode 1, this reception icon is showing the condition of the reception of the signal from Thermo-hygro transmitter

Mode 2 : Wind Gust, Dew Point temperature and Rainfall reading are shown.

Wind gust icon
Dew point icon
Rainfall icon

In Mode 2, this reception icon is showing the condition of the reception of the signal from Rain sensor

MANUAL SETTING:
The following manual settings can be changed once the SET key is pressed and hold for about 2 seconds:
- LCD contrast setting
- Manual time setting
- 12/24 hour time display
- Calendar setting
- °F/ °C temperature unit setting
- Wind speed unit
- Rainfall unit setting
- Air pressure unit setting
- Relative pressure reference value setting
- Weather tendency threshold value

- Storm warning threshold value
- Storm alarm On/ Off setting

LCD CONTRAST SETTING
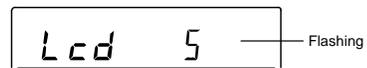
Flashing

The LCD contrast can be set within 8 levels, from "LCD 1" to "LCD 8" (default setting is LCD 5):
1. Press the *SET* key, the contrast level digit will start flashing.
2. Use the *+* or *MIN/MAX* key to adjust the level of contrast.
3. Confirm with the *SET* key and enter the **MANUAL TIME SETTING**.

MANUAL TIME SETTING:
You then may manually set the time of the clock by following the steps below:

Minutes flashing
Hour flashing

1. The hour digit will start flashing.
2. Use the *+* or *MIN/MAX* key to set the hour.
3. Press the *SET* key to switch to the minutes. The minute digit will start flashing.
4. Use the *+* or *MIN/MAX* key to set the minute.
5. Confirm the time with the *SET* key and enter the **12/24 HOUR TIME DISPLAY SETTING**.

12/24 HOUR TIME DISPLAY SETTING:

— Digit flashing

The time can be set to view as 12-hour or 24-hour format. The default time display mode is *12-h*. To set to *24-h* time display:
1. Use the + or *MIN/MAX* key to toggle the value.
2. Confirm with the *SET* key and enter the **CALENDAR SETTING**.

CALENDAR SETTING:

"Date. Month." (for 24h time display)
"Month. Date." (for 12h time display)

— Année

The date default of the Weather Center is 1. 1. of year 2005. The date can be set manually by proceeding as follows.
1. The year digit starts flashing.
2. Use the + or *MIN/MAX* key to set the year. The range runs from "00" (2000) to "99" (2099).
3. Press the *SET* key to confirm the year and enter the month setting. The month digit will start flashing.
4. Use the + or *MIN/MAX* key to set the month.
5. Press the *SET* key to confirm the month and enter the date setting mode. The date digit will start flashing.

6. Use the + or *MIN/MAX* key to set the date.
7. Confirm all calendar settings with the SET key and enter the **°F/°C TEMPERATURE UNIT SETTING**.

°F/°C TEMPERATURE UNIT SETTING

— Flashing

The temperature display can be selected to show temperature data in °F or °C. (default °F)
1. The temperature unit is flashing
2. Use the + or *MIN/MAX* key to toggle between "°F" or "°C".
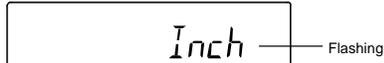3. Confirm with the *SET* key and enter the **WIND SPEED UNIT SETTING.**

WIND SPEED UNIT SETTING

— Flashing

The wind speed unit can be set as mph (mile per hour), km/h (kilometer per hour), or m/s (meter per second). The default unit is mph.
1. Use the + or *MIN/MAX* key to toggle between the unit "mph", "km/h" or "m/s"
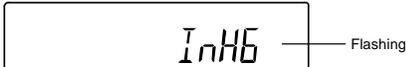2. Confirm with the *SET* key and enter the **RAINFALL UNIT SETTING**.

RAINFALL UNIT SETTING

— Flashing

The rainfall unit can be set as inch or mm. The default unit is mm.
1. Use the + or *MIN/MAX* key to toggle between the unit "inch" or "mm"
2. Confirm the unit with the *SET* key and enter the **RELATIVE AIR PRESSURE UNIT SETTING**

RELATIVE AIR PRESSURE UNIT SETTING

— Flashing

The relative air pressure can be set as inHg or hPa. The default unit is inHg.
1. Use the + or *MIN/MAX* key to toggle between the unit "inHg" or "hPa"
2. Confirm the unit with the *SET* key and enter the **RELATIVE PRESSURE REFERENCE VALUE SETTING**.

RELATIVE PRESSURE REFERENCE VALUE SETTING

Note:
The default reference pressure value of the barometer is 29.91inHg when batteries are first inserted. **For an exact measurement, it is necessary to first adjust the barometer to your local relative air pressure (related to elevation above sea level)**. Ask for the current atmospheric pressure of your home area (Local weather service, www, optician, calibrated instruments in public buildings, airport).

The relative air pressure can be manually set to another value within the range of 27.14 to 31.90 inHg (919 to 1080 hPa) for a better reference.


Flashing—

1. The current relative pressure value will start flashing
2. Use the + or *MIN/MAX* key to increase or decrease the value. Continually holding the key will allow the value to increase faster.
3. Confirm with the *SET* key and enter the **WEATHER TENDENCY SENSITIVITY VALUE SETTING**.

Note:
This feature is useful for those who live at elevations above sea level, but want their air pressure display to be based on sea level elevation.

WEATHER TENDENCY SENSITIVITY LEVEL SETTING

— Flashing

— Flashing
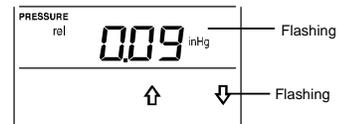
You may select a definite switching sensitivity value, .06, .09, or .12 inHg for the change in the display of weather icons. This represents the "sensitivity" of the weather forecast (the smaller the value selected, the more sensitive the weather forecast).

The default value is 0.09 inHg. Select lower numbers in high humidity areas, i.e. Oceanside. Select high numbers in arid areas, i.e. Desert.
1. The sensitivity value will start flashing
2. Use the + or *MIN/MAX* key to select the value.
3. Confirm with the SET key and enter the **STORM WARNING SENSITIVITY SETTING**.

STORM WARNING THRESHOLD VALUE SETTING
You may also define a switching sensitivity value for the Storm warning display at a decrease of air pressure from .09 inHg to .27 inHg over 6 hours (Default 0.15 inHg).


1. The sensitivity value will start flashing.
2. Use the + or *MIN/MAX* key to select the value.
3. Confirm with the *SET* key and enter the **STORM ALARM ON/OFF SETTING**.

STORM ALARM ON/ OFF SETTING
You may also choose to switch On or Off the acoustic Storm warning alarm (Default OFF).
1. The digit "AOF" will start flashing.
2. Use the + or *MIN/MAX* key to switch On or Off the alarm. ("AOF" = OFF; "AON" = On)

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3. Confirm with the *SET* key and the normal display mode will be shown.
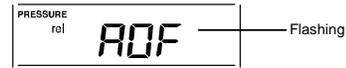
Note:
In case a storm warning alarm is activated, the downward weather tendency arrow will be flashing. (Also see **WEATHER TENDENCY INDICATOR** below)

TO EXIT THE MANUAL SETTING MODE
To exit the manual setting anytime during the manual setting modes, press the *ALARM* key (or *HISTORY* key) or wait for the automatic timeout. The mode will return to the normal time display.

TIME ALARM SETTING
The alarm time can be set by the use of the *ALARM* and *SET* key.
1. Press the *ALARM* key once. The "ALARM" icon and time digits are shown at the top right of the LCD.

2. Press and hold the *SET* key for about 2 seconds. The hour digit of the alarm time will start flashing. Press the + or *MIN/MAX* key to set the hour of the alarm time.

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3. Press the *SET* key to confirm and advance to the minute setting. The minute digit will be flashing.
4. Press the + or *MIN/MAX* key to set the minute of the alarm time. Press the *ALARM* key to confirm. Press the *HISTORY* key or wait for about 30 seconds and the display will return to normal display mode automatically.
5. In the normal display mode, press the *ALARM* once key to go to the time alarm setting mode again. Then press shortly the *SET* key to switch on or off the time alarm. (The showing of the icon (((•))) means that the time alarm is switched on.)
6. Press the *HISTORY* key or wait for about 30 seconds and the display will return to normal display mode automatically.

Note:
The alarm ringing duration is 2 minutes. To stop the alarm, press any key during the alarm ringing.

Important Note:
After you have followed the aforementioned set-up procedures, you shall read the main manual for the following important functions of the weather station in details:
• Setting Weather alarm
• Viewing wind/ rainfall and air pressure data
• Viewing Max/ Max weather data
• Viewing History data record

Mounting the units:
Using 915MHz wireless transmission gives users little restriction on placement as that all units can be positioned virtually anywhere to within a 330 ft radius of the base station. Please ensure that the cable included in this set meets with your distance requirements (see accessories in the main user manual for adding extension cables).

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Important: Ensure all signals can be received and/or all cable distances meet with your requirements at the point of fixing particularly before you start drilling any mounting holes.

Wind sensor
Secure the main unit to the shaft of the mast holder using the single screw provided with the front of the sensor (marked E) facing in the East-West direction otherwise wind direction will not be accurate. Now fix the entire unit to a suitable mast using the U-bolt, washers and nuts found in this set.
Note: For best results mount the wind sensor onto a mast to allow the wind to freely travel from all directions to enable an accurate reading (ideal mast size should be from Ø $^5/_8$" to $1^1/_4$"). Ensure that the cable of the wind sensor meets your distance requirements

Rain sensor
The rain sensor should be mounted horizontally about 2-3ft off from the ground (or higher) in an open area away from trees or other coverings to allow rain to fall naturally for an accurate reading.

Note: For best results ensure the base is horizontal to allow maximum drainage of any collected rain

Thermo-hygro Sensor
To wall mount the thermo-hygro sensor, fix the wall holder onto the desired wall (2 screws are supplied), plug the sensor firmly into the wall holder and then carefully replace the rain cover back over the thermo-hygro sensor.

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Note: After mounting the units, should the weather data not be received, user may need to remove the batteries from all units and redo the set-up procedures after about 5 minutes.

WARRANTY INFORMATION

La Crosse Technology, Ltd provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and used in North America and only to the original purchaser of this product. To receive warranty service, the purchaser must contact La Crosse Technology, Ltd for problem determination and service procedures. Warranty service can only be performed by a La Crosse Technology, Ltd authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to La Crosse Technology, Ltd or La Crosse Technology, Ltd's authorized service center.

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd.

Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination.

The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd authorized service center. La Crosse Technology, Ltd will pay ground return shipping charges to the owner of the product to a USA address only.

Your La Crosse Technology, Ltd warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to, or deterioration of, any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs or alterations by someone other than an authorized La Crosse Technology, Ltd authorized service center; (6) units used for other than home use (7) applications and uses that this product was not intended or (8) the products inability to receive a signal due to any source of interference.

This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

LA CROSSE TECHNOLOGY, LTD WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDREN'S REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do no allow the exclusion of consequential or incidental damages therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact:

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2809 Losey Blvd. S.
La Crosse, WI 54601
Phone: 608.782.1610
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For more information, please visit:
www.lacrossetechnology.com

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